

tric matter with that of lightning completely demonstrated.

I was pleased to hear of the success of my experiments in France, and that they there begin to erect points upon their buildings. We had before placed them upon our academy and state-house spires.

**XCVI. A Letter of Mr. W. Watson, F. R. S.
to the Royal Society, concerning the electrical Experiments in England upon Thunder-Clouds.**

To the Royal Society.

Gentlemen,

Read Dec. 21,

1752.

ATTER the communications, which we have received from several of our correspondents in different parts of the continent, acquainting us with the success of their experiments last summer, in endeavouring to extract the electricity from the atmosphere during a thunder-storm, in consequence of Mr. Franklin's hypothesis, it may be thought extraordinary, that no accounts have been yet laid before you, of our success here from the same experiments. That no want of attention, therefore, may be attributed to those here, who have been hitherto conversant in these inquiries, I thought proper to apprise you, that, though several members of the Royal Society, as well as myself, did, upon the first advices from France, prepare and set up the necessary apparatus for this purpose, we were defeated in our expectations, from the uncommon coolness and dampness

dampness of the air here, during the whole summer. We had only at London one thunder-storm; *viz.* on July 20; and then the thunder was accompanied with rain; so that, by wetting the apparatus, the electricity was dissipated too soon to be perceived upon touching those parts of the apparatus, which served to conduct it. This, I say, in general prevented our verifying Mr. Franklin's hypothesis: but our worthy brother Mr. Canton was more fortunate. I take the liberty, therefore, of laying before you an extract of a letter, which I received from that gentleman, dated from Spital-square, July 21, 1752.

" I had yesterday, about five in the afternoon, an
 " opportunity of trying Mr. Franklin's experiment
 " of extracting the electrical fire from the clouds;
 " and succeeded, by means of a tin tube, between
 " three and four feet in length, fixed to the top of
 " a glass one, of about eighteen inches. To the up-
 " per end of the tin tube, which was not so high
 " as a stack of chimnies on the same house, I fastened
 " three needles with some wire; and to the lower
 " end was folder'd a tin cover to keep the rain from
 " the glaſs tube, which was ſet upright in a block
 " of wood. I attended this apparatus as ſoon after
 " the thunder began as poſſible, but did not find it
 " in the leaſt electrified, till between the third and
 " fourth clap; when applying my knuckle to the
 " edge of the cover, I felt and heard an electrical
 " ſpark; and approaching it a ſecond time, I re-
 " ceived the ſpark at the diſtance of about half an
 " inch, and ſaw it diſtinctly. This I repeated four
 " or five times in the ſpace of a minute; but the
 " ſparks

" sparks grew weaker and weaker ; and in less than
 " two minutes the tin tube did not appear to be
 " electrified at all. The rain continued during the
 " thunder, but was considerably abated at the time
 " of making the experiment." Thus far Mr. Canton.

Mr. Wilson likewise of the Society, to whom we are much obliged for the trouble he has taken in these pursuits, had an opportunity of verifying Mr. Franklin's hypothesis. He informed me, by a letter from near Chelmsford in Essex, dated Aug. 12, 1752. that, on that day about noon, he perceived several electrical snaps, during, or rather at the end of, a thunder-storm, from no other apparatus than an iron curtain-rod, one end of which he put into the neck of a glass phial, and held this phial in his hand. To the other end of the iron he fasten'd three needles with some silk. This phial, supporting the rod, he held in one hand, and drew snaps from the rod with a finger of his other. This experiment was not made upon any eminence, but in the garden of a gentleman, at whose house he then was.

Dr. Bevis observed, at Mr. Cave's at St. John's gate, nearly the same phænomena as Mr. Canton, of which an account has been already laid before the public.

Trifling as the effects here mention'd are, when compared with those, which we have received from Paris and Berlin, they are the only ones, that the last summer here has produced ; and as they were made by persons worthy of credit, they tend to establish the authenticity of those transmitted from our correspondents.

I flatter myself, that this short account of these matters will not be disagreeable to you; and am, with the most profound respect,

Gentlemen,

Your most obedient humble servant,

Lincoln's-Inn-Fields,
Dec. 20, 1732.

W. Watson.

XCVI. *Extract of a Letter from Mr. Brown, Apothecary, at Salisbury, to Mr. Wm. Watson, F. R. S. concerning the Success of Inoculation there.*

Read Dec. 21, 1752, and here printed with Additions:

I AM much obliged to you for the observations, which you were so kind as to send me, concerning the method of inoculating for the small-pox, and the subsequent treatment of that distemper. This I should not have deferred till now, but that I was desirous of sending you some account of our success therein.

Since the receipt of your letter, inoculating has been very much practised here, and with great success; of which the account I now send may be looked upon as pretty authentic. From the 13 of August, to the beginning of February, have been inoculated, in this city and neighbourhood, four hundred and twenty-two persons. On five or six of these, to my knowledge, it had no effect; though on one the experiment was tried a second time.

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